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MARCH1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14345c

Product Information

Application	WB, E
Primary Accession	Q8TCQ1
Other Accession	Q6NZQ8, NP_060393.1, NP_001159845.1
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33494
Calculated MW	32308
Antigen Region	163-191

Additional Information

Gene ID	55016
Other Names	E3 ubiquitin-protein ligase MARCH1, 632-, Membrane-associated RING finger protein 1, Membrane-associated RING-CH protein I, MARCH-I, RING finger protein 171, MARCH1, RNF171
Target/Specificity	This MARCH1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 163-191 amino acids from the Central region of human MARCH1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MARCH1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MARCHF1 (HGNC:26077)
Synonyms	MARCH1, RNF171

Function	E3 ubiquitin-protein ligase that mediates ubiquitination of TFRC, CD86, FAS and MHC class II proteins, such as HLA-DR alpha and beta, and promotes their subsequent endocytosis and sorting to lysosomes via multivesicular bodies (PubMed:18389477, PubMed:18305173, PubMed:21220452, PubMed:35045264). By constitutively ubiquitinating MHC class II proteins in immature dendritic cells, down-regulates their cell surface localization thus sequestering them in the intracellular endosomal system. Also regulates insulin sensitivity by controlling surface expression of the insulin receptor subunit beta/INSR by direct ubiquitination and degradation (PubMed:27577745).
Cellular Location	Golgi apparatus, trans-Golgi network membrane {ECO:0000250|UniProtKB:Q6NZQ8}; Multi-pass membrane protein. Lysosome membrane; Multi- pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Early endosome membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed in antigen presenting cells, APCs, located in lymph nodes and spleen. Also expressed in lung. Expression is high in follicular B-cells, moderate in dendritic cells and low in splenic T-cells.

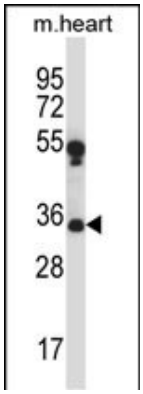
Background

MARCH1 is a member of the MARCH family of membrane-bound E3 ubiquitin ligases (EC 6.3.2.19). MARCH proteins add ubiquitin (see MIM 191339) to target lysines in substrate proteins, thereby signaling their vesicular transport between membrane compartments. MARCH1 downregulates the surface expression of major histocompatibility complex (MHC) class II molecules (see MIM 142880) and other glycoproteins by directing them to the late endosomal/lysosomal compartment (Bartee et al., 2004 [PubMed 14722266]; Thibodeau et al., 2008 [PubMed 18389477]; De Gassart et al., 2008 [PubMed 18305173]).

References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Thibodeau, J., et al. Eur. J. Immunol. 38(5):1225-1230(2008)
De Gassart, A., et al. Proc. Natl. Acad. Sci. U.S.A. 105(9):3491-3496(2008)
Bartee, E., et al. J. Virol. 78(3):1109-1120(2004)

Images



MARCH1 Antibody (Center) (Cat. #AP14345c) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the MARCH1 antibody detected the MARCH1 protein (arrow).